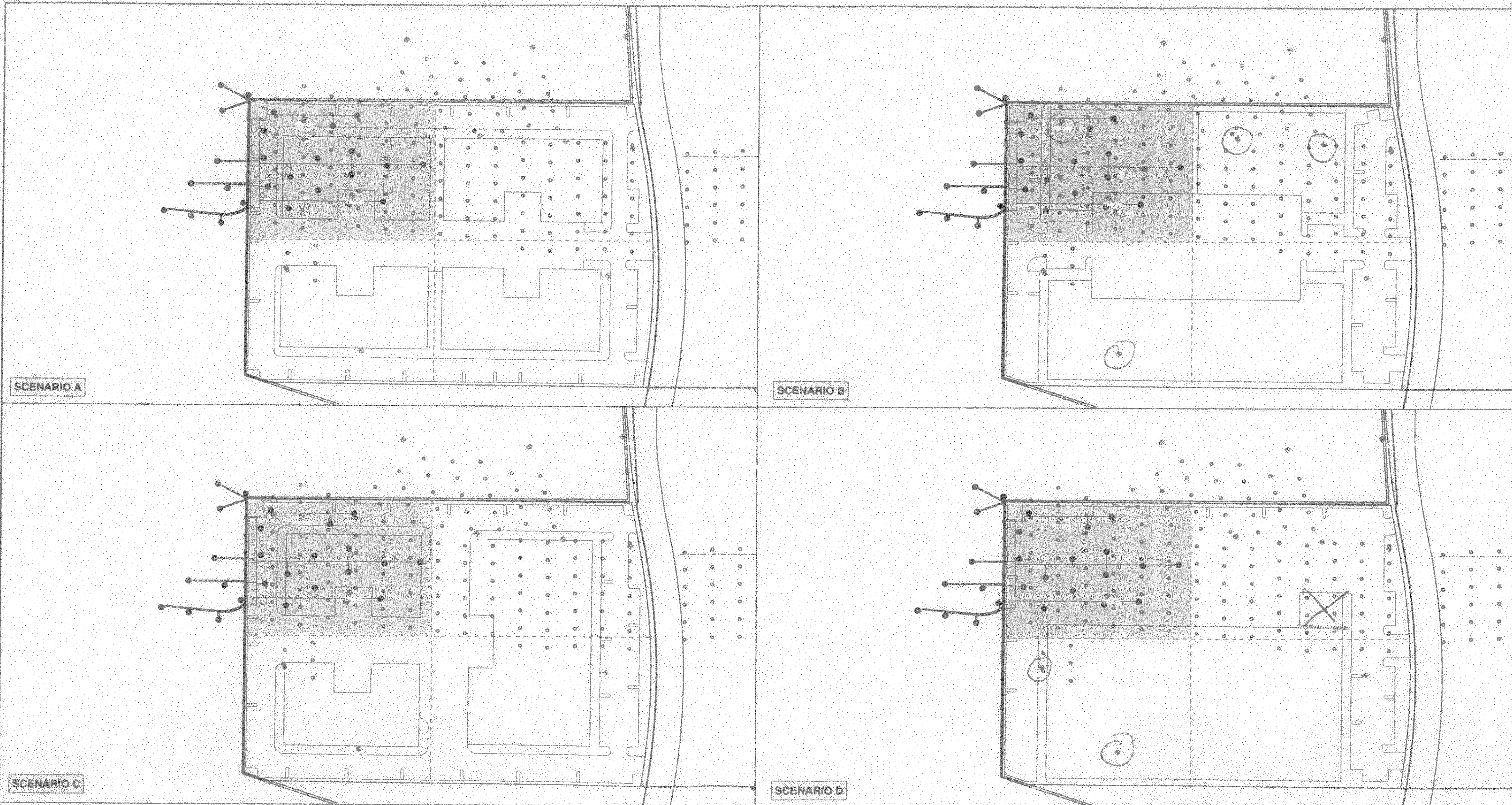
SW
12/18



LEGEND

- Vapor Extraction Well 5+ yrs
- Proposed Bioinjection Well 3-5 yrs
- Groundwater Monitoring Well Location
- Building Outline
- Parking Lot
- Shaded Area is Northeast Quadrant

N

0 40 80 160 240 Feet

HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

BOEING REALTY CORPORATION
FORMER C-6 FACILITY
LOS ANGELES, CA

LOT 8 REDEVELOPMENT AND REMEDIATION INFRASTRUCTURE SCENARIOS

SCALE AS SHOWN

DECEMBER 2003

28882-602

BOE-C6-0094007

SW
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FORMER C-6 FACILITY
DRAFT LOT 8 REDEVELOPMENT ENVIRONMENTAL INFRASTRUCTURE EVALUATION
SUMMARY PAGE
DECEMBER 12, 2003

Options	Construction Assumptions	Advantages	Disadvantages	BRC Redevelopment Scenario			
				A	B	C	D
Cost for remediation infrastructure buildings on the NW, SE, and SW quadrants.							
	* Includes Development of SE, NE, and NW quadrants with buildings. * Includes sub-slab remediation infrastructure costs for SE, NE and NW quadrants.	N/A	N/A	$260,987	$250,146	$261,770	$248,047
Option 1, NE Quadrant (Fenced Dirt Lot; Base Case)							
	* NE quadrant graded with the rest of the lot. * NE quadrant fenced off. Quadrant remains a dirt lot. * All Environmental infrastructure completed above grade. * Year 5 - remove SVE wells, grade and install Post-SVE Bio Option.	* Allows for verification of Bio system performance and adjustment prior to burial. * Lowest cost option. * Maximum flexibility for future environmental work (additional wells, closure borings, waste storage, etc.). * Reduces/minimizes the need for SVE contingency wells. * Allows for direct verification of SVE completion through soil sampling. * Minimize SVE system down time. * Should result in lowest possible SVE costs.	* No rental income from property. * Not visually attractive to new owners/tenants on other redeveloped quadrants (fenced off dirt lot). * Requires SVE well abandonment and replacement for grading.	$48,000	$48,000	$48,000	$48,000
	Initial Cost (Base + Option 1; Years 0 to 5)			$308,987	$298,146	$309,770	$296,047
	Additional Cost, Upon SVE Completion (Year 5?)			$218,422	$228,580	$218,422	$222,351
	Total Cost (initial cost + additional cost)			**$527,409**	**$526,726**	**$528,192**	**$518,398**
Option 2, NE Quadrant (Parking Lot)							
	* NE quadrant graded with the rest of the lot. * NE quadrant paved for use as parking lot until SVE completion (5+ years). * Existing SVE and groundwater monitoring wells to be abandoned prior to grading and re-installed. * SVE piping completed below grade/pavement. Installed below grade for parking lot use only, no building. * No sub grade/pavement bioammendment piping. Each bio well completed in a separate road box.	* Allows for verification of Bio system performance and adjustment prior to burial. * Can be used for tenant parking - rental income. * Moderate to high flexibility for future environmental work. * Reduces/minimizes the need for SVE contingency wells. * Allows for direct verification of SVE completion through soil sampling. * Allows for 5+ years of parking rent over Option 1.	* Limited rental income potential - parking only. * No sub-pavement bio piping - will require the parking lot, or portions thereof, to be shut down for 2-3 weeks per injection event likely 2-3 events per year (4-9 weeks per year). * Potentially higher O&M costs over sub-grade piping due to extra labor for connecting wells with above ground hoses during injection events. * Still requires underground Bio piping to be installed prior to building construction (Post-SVE Bio Option) at 5+ years. * Requires that SVE wells be abandoned prior to parking lot construction and re-installed.	$172,670	$172,670	$172,670	$172,670
	Initial Cost (Base + Option 2; Years 0 to 5)			$433,657	$422,816	$434,440	$420,717
	Additional Cost, Upon SVE Completion (Year 5?)			$218,422	$228,580	$218,422	$222,351
	Total Cost (initial cost + additional cost)			**$652,079**	**$651,396**	**$652,862**	**$643,068**
Option 3, NE Quadrant (Building)							
	* NE quadrant developed with building now. * SVE and groundwater wells to be abandoned prior to grading and re-installed. * SVE and bio piping installed below grade/building slab.	* Quadrant can be developed immediately for sale or tenant lease. * Visually attractive to owners or tenants of other developed lots. * Highest income value to off-set remediation costs. * Potentially lowest O&M cost - minimal injection event set-up locations.	* Low flexibility for future environmental work - difficult to drill through new building slabs to modify remediation systems if needed. * Requires addition of contingency SVE and Bio wells that may not be needed (additional cost).	$439,400	$459,818	$446,730	$453,617
	Total Cost (Base + Option 4)			**$700,386**	**$709,964**	**$708,500**	**$701,664**